



*Emily Schaller*

CYSTIC FIBROSIS

*“My future is the brightest it has ever been, and I am beyond excited to see where we are heading.”*

I was born in 1982 to a very athletic mom, a dad with a mustache, and two older brothers with bowl cuts. The only thing that made me different from them (besides being a short girl without a mustache and bowl cut) was that I was born with cystic fibrosis. My diagnosis came after 18 months of struggles to gain weight and a constant series of runny nose and ear infections. My CF diagnosis in 1983 was grim, but my parents made a decision to not let CF stop me from living.

During the first decade of my life, I was very active and healthy. The only medications I took were vitamins and digestive enzymes. My parents performed my chest physical therapy to help loosen up any mucus in my lungs. As I got older, more medications were developed, and patients were living longer. In my teens, however, I started to develop more lung infections and lose lung function, even though I was on all of the possible CF medications.

In 2007, I decided that there was more that I could do to get my life back. I changed my diet to a whole-foods-based vegetarian diet and started to run and cycle. It took four months to be able to run two miles, but once I could, I kept running. My pulmonary function went up and my hospital stays went down. Since 2007, I have completed 11 half marathons, and I have a goal of participating in one in every state. I also cycle 1,000 miles each year and have completed a half iron distance triathlon. Exercise has definitely given me life.

While I was busy getting healthy, there was some incredible research and development being done for the first drug of its kind being developed to treat cystic fibrosis at its core.

## CYSTIC FIBROSIS

Cystic fibrosis (CF) is a life-threatening genetic disease that primarily affects the lungs and digestive system. An estimated 30,000 children and adults in the United States have CF. In people with CF, a defective gene and its protein product cause the body to produce unusually thick, sticky mucus that clogs the lungs and leads to life-threatening lung infections, and/or obstructs the pancreas and stops natural enzymes from helping the body break down food and absorb vital nutrients. Symptoms include:

- Very salty-tasting skin
- Persistent coughing, at times with phlegm
- Frequent lung infections
- Wheezing or shortness of breath
- Poor growth and slow weight gain, in spite of a good appetite
- Frequent greasy, bulky stools or difficulty in bowel movements

*Source: Cystic Fibrosis Foundation. "About CF." [cff.org](http://cff.org)*

Born and raised in “The Motor City,” I am very familiar with rock ’n’ roll, sports, Motown, and, of course, cars. Everyone knows that Henry Ford’s Model T was where it all started. The more I think about it, my newest medication, Kalydeco, is the Model T of cystic fibrosis designer drugs. It is paving the way for more drugs that will help treat the underlying cause of CF.

I was lucky enough to be in the Phase 2 and Phase 3 clinical trials for Kalydeco. While I know I was on placebo for the Phase 2 trial, it was four days into the Phase 3 trial that I realized that I was on the real thing. Almost instantly I noticed that I could take a full, deep breath without coughing, or run 10 miles and still be full of energy. I feel better today than any time in my life. Soon enough, future generations may be using only a pill or two that is designed just for their gene mutation to control their CF. My future is the brightest it has ever been, and I am beyond excited to see where we are heading.

*Emily Schaller was a patient speaker at the ATS 2014 International Conference in San Diego.*